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INTRODUCTION

OBJECTIVE

The objective of this guide is to provide acquisition management personnel, especially personnel who are working in program offices, with an insight into the process by which defense contractors manage and government personnel monitor indirect costs. Although program office personnel are not involved in indirect cost management at contractors' facilities on a real-time basis, they need to thoroughly understand the nature of these costs and to know who to contact when questions or problems arise. Indirect costs will definitely have a very significant cost impact upon all weapon system acquisition programs. Therefore, a primary objective of our guide is to explain the roles and relationships of the many key government personnel involved with the indirect cost management process. Further, it is hoped that our guide will highlight areas for strengthening the management of indirect costs.

The level of detail in our guide is directed to nonfinancial personnel, because of the varied and broad backgrounds of people working in program management. The guide is not intended as a detailed how-to guide for industry or government functional managers but rather as a comprehensive overview of basic principles and issues related to indirect costs. A detailed how-to guide for government personnel who are directly involved in monitoring indirect cost on a daily basis has been prepared by the Defense Contract Management Command.

The guide is organized to walk the reader through the many aspects of indirect cost management. This introductory chapter on the sig-

nificance of indirect costs, the complexity of managing them, and the necessity for a team approach is followed by additional chapters that define basic concepts and terms, explain how indirect costs are allocated to contracts, explore how defense contractors manage these costs, discuss recent actions taken by defense contractors to reduce these costs, explain unique government requirements relating to indirect costs, define who the various government team members are as well as what they do, and, finally, discuss current managerial issues.

SIGNIFICANCE OF INDIRECT OR OVERHEAD COSTS

Whether a cost is classified as a direct or indirect cost can make a tremendous difference in defense contracting. For example, when there is a diverse business base the government will pay 100% of all direct costs but only a portion of indirect costs under its negotiated contracts. But the standard for determining what is a direct and what is an indirect cost is far from universal in the defense industry—or in any industry for that matter. But the classification of direct and indirect costs must be very exact at a specific defense contractor's plant and we will discuss this subject in considerable detail in a later chapter. For introductory purposes, indirect costs are those costs incurred for the general operation of the business and are not specifically applicable to any one product line, program, or contract. Direct costs are associated with a specific "final cost objective," such as a specific defense contract, while indirect costs are associated with common or joint cost objectives such as the work on several contracts.

Indirect costs, in the aggregate, represent the largest class of expense incurred under defense contracts. Recent estimates made by the Defense Contract Management Command (DCMC), in conjunction with discussions with defense contractor top management on their DCMC Overhead Initiative, indicate that indirect costs constitute approximately \$90 billion of the \$170 billion total DoD work-in-process at all defense contractor plants. See Exhibit 1, "Significance of Indirect Costs," for a breakout of this estimate of work-in-process between direct and indirect costs. As shown, the indirect costs of 16% incurred by subcontractors and vendors and the 37% incurred by prime contractors (in-plant) represented approximately 53% of total cost. Of course, the ratio of indirect cost to total cost will vary significantly among contractors within the defense industry, for it depends upon many factors. That is to say, there will be numerous differences in both work force and accounting classifications as to direct or indirect, types of products, production methods used, degree to which materials are furnished by the government, extent to which subcontractors are used, and the composition of facilities ownership. For these reasons, it is not meaningful to attempt to continuously track an exact industry-wide ratio of indirect to total cost. But regardless of the many differences between companies, in most the indirect costs of doing business will at least roughly equal the direct costs. Since indirect costs are such a significant portion of current and future total weapon system cost, program managers and others in the acquisition community must have a thorough understanding of these costs to ensure that the costs of weapons systems are kept on target.

At the outset, one should clearly recognize that the very nature of defense industry products will often dictate high indirect costs on a per-unit basis. The defense industry is critically dependent upon tremendous investments in fixed as-

sets. The sheer size of some the weapons systems require huge buildings, sometimes covering scores of acres. These large state-of-the-art facilities suggest major depreciation, maintenance, property taxes, and other large fixed indirect or overhead costs. Large research and development expenditures are necessary for a company to stay competitive in the defense industry. Research and development work necessary to produce a new weapon system normally takes many years to complete. More and more technical advancements are demanded by DoD. In order to stay on the leading edge of technology and continue to remain competitive, a company is often required to develop totally new materials. This will most likely require new processes, tooling, machinery, and personnel. In addition to its own research, development, and manufacturing efforts, defense prime contractors are responsible for overseeing the work of many subcontractors and vendors who are producing new, highly technical products. Defense contractors are required to make large investments in bid and proposal expenses in order to respond to complex government requests for proposals. Sophisticated management control systems are required in order to be capable of complying with stringent government specifications for engineering, manufacturing, and product support. Contractual reporting requirements are far more detailed and expensive than those in the commercial world. Environmental and safety requirements are substantial. Special product handling and security requirements are characteristic of the defense industry. All of these expenses are usually indirect or overhead costs that must be absorbed by all contracts if the contractor is to stay in business. In addition, defense contractors normally produce nonstandard, tailored, highly sophisticated products in relatively low volumes. Assembly is usually an intense, highly engineering-oriented process with small production quantities. As we will later discuss, a low volume results in high indirect rates.

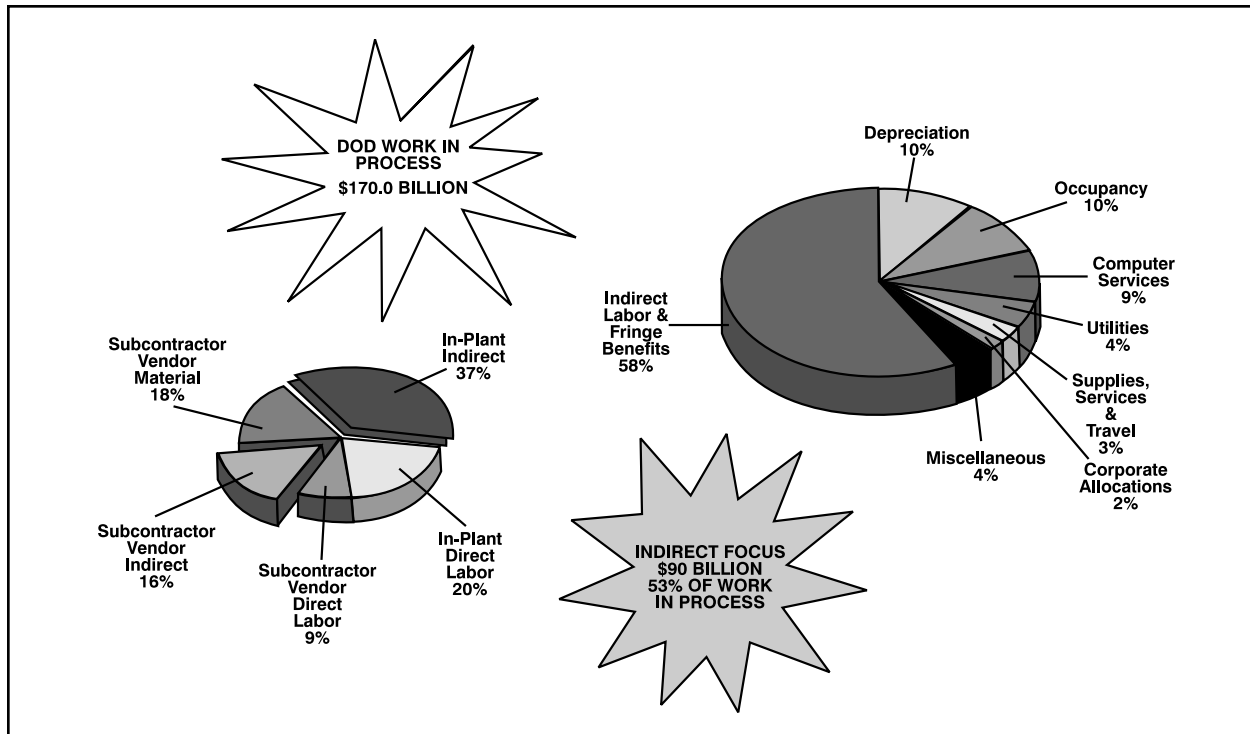


Exhibit 1. Significance of Indirect Costs

The defense budget has been in a continuing state of decline during the past decade. In particular, the continuous and large-scale decline in the defense procurement budget and research, development, test, and evaluation (RDT&E) budget has caused the defense industry to incur a steep drop-off in business base. As a result, indirect rates at many defense contractors have increased significantly as the value of contracts awarded by DoD has declined. The remaining DoD contracts are necessarily forced to absorb additional indirect costs that cannot be quickly eliminated. During the 1980s, the indirect rates of most defense contractors were safeguarded by a nearly continuous increase in business base. However, the demise of the Soviet Union has ended this continuity. A fundamental change in defense requirements has brought about a significant financial impact: an increase in indirect rates.

These increases result not only from the business base decline but also because indirect ex-

penses have increased. For example, when the business base declines, the contractor is forced to lay off large numbers of direct employees; their severance pay is an indirect expense. One technological factor that drives increases in overhead expenses is the substitution of expensive, computer-operated, labor-saving machines for direct labor in the manufacturing area. This substitution simultaneously increases the overhead expenses (added depreciation and maintenance charges) and also decreases the allocation base if it is direct labor dollars or hours. The financial impact is an immediate increase in indirect rates.

Many indirect efforts are to a large extent discretionary in nature and can be reduced or eliminated by management if conditions warrant. So indirect costs demand constant attention if the contractor is to control them effectively. From an industry perspective, there is probably no other area of management where the concentration of executive talent can be more effec-

tive. Defense contractor managers are now taking very significant actions to reduce indirect costs (see Chapter 5).

From the government's perspective, where there is an absence of adequate competitive market conditions, there is a compelling need for a sound system for monitoring indirect costs to ensure that such significant costs are managed efficiently. The government program manager needs to motivate his contractors to exercise management controls that keep indirect costs at the lowest reasonable level and to include in future contract prices only those indirect costs that are reasonable and properly allocated to his contracts. It is interesting to note that when the volume of contracts declines, a contractor quickly incurs less direct contract costs. But indirect costs may not decline as rapidly, since many fixed expenses may remain in overhead pools (e.g., the leased cost for a building, supervisory labor, power, property insurance). Consequently, government program managers should ensure that company management is reducing indirect costs as rapidly as prudent judgment allows.

DIFFICULTY OF CONTROL

The management of indirect costs has long been recognized as one of the most difficult areas to manage. There is often no clear-cut relationship between these expenses and profit, as there is with direct cost. For example, material and labor costs are very visible to management and can be estimated and controlled directly. However, the nature of indirect cost is such that the expenses are spread over a number of expense accounts of various types of expenditures occurring sporadically over the year. Most defense contractors have literally hundreds of expense accounts in each indirect cost pool. Many different persons are responsible for the incurrence of the expenses. The indirect totals that are reported every month on various cost reports are

aggregates of hundreds of unrelated indirect expenses. Further, increases in indirect expenses occur more slowly, may be less apparent, and result from a large number of unrelated actions taken by numerous managers. Management must be constantly aware of and understand the detailed composition of such costs in order to be able to control them effectively.

Many contractors who produce military hardware also produce similar hardware for commercial applications within the same division of the corporation. This is very advantageous to both the contractor and the government because it enables them to become more efficient by capitalizing on significant economies of scale. Unfortunately, this also creates ambiguity in the allocation of indirect costs between defense and commercial contracts. The acceptance of what is considered to be a "fair and reasonable" amount of the indirect costs by the government has generated some of the most difficult problems relating to government contracts. As a result, most government cost regulations, which are contained in the Federal Acquisition Regulation (FAR), are associated with the coverage of indirect costs. A thorough understanding of the regulatory provisions, which we will discuss in considerable detail, is essential to understanding indirect costs.

Government acquisition management personnel generally view indirect costs as vague and excessive. They understand very well what generates direct labor, direct material, and subcontract costs but they are much less aware of what generates indirect costs. They generally do not appreciate that indirect costs are generated by the contractor's total business volume and not by the volume of any specific contract. Indirect costs lose their identity when allocated to contracts from common cost pools and unlike direct costs, they cannot be analyzed on a contract-by-contract basis. Although the monitoring of indirect cost is often time-consuming and

complex, it is absolutely essential for proper visibility of the weapon system acquisition process.

CURRENT ENVIRONMENT

From a financial perspective, at no time in recent history have defense industry and government acquisition personnel been faced with a greater challenge. Given the current environment of less large-scale manufacturing and more prototyping, one expects indirect rates to increase in the future (i.e., less production, less manufacturing direct labor, with more engineering changes, therefore higher indirect rates). Also, during the past few years, DoD has changed the methods by which it contracts for research and development. The shift has placed a major emphasis on using cost-type contracts as opposed to fixed price contracts. This places DoD in the position of assuming more cost risk. The results of a significant decline in the defense business base of a company, along with DoD's shift in how it contracts, places a very high probability for growth in indirect rates.

Schedule delays are frequently encountered on many defense programs. The delays may be caused by unpredictable technical problems encountered in research and development programs, engineering changes to take advantage of technology improvements, budgetary uncertainties, and political decisions. These extended delays may cause significant increases in indirect costs.

In a declining business environment, rising indirect rates generally mean that a contractor's allocation base for distributing indirect or overhead costs, which is often direct labor hours or direct labor dollars, is decreasing faster than the contractor can reduce indirect costs. There may be a delay in reducing indirect costs because the base falls away on a continuous basis and the indirect budgets are usually determined on an

annual or semiannual basis. Again, continued oversight of the indirect cost management process and cost containment measures must be maintained.

IMPORTANCE OF A TEAM APPROACH

From the government's perspective, the approach to monitoring indirect costs is to monitor the contractor's management processes, not individual indirect expenditures, with the exception of samples to test the satisfactory or unsatisfactory operation of the management control system. The government expects the contractor to manage its own indirect costs—but at the same time the government has a major role to play. The government's objective is to influence the contractor's process and to take appropriate action before the costs are incurred, not after the fact. This focus will be discussed in detail later (Chapter 8) with the primary emphasis being placed on negotiation of forward pricing rates.

Government acquisition management personnel must understand that overhead costs relate to all business that the contractor has in his plant, not just to one program. Therefore, the responsibility for monitoring indirect costs necessarily rests with the administrative contracting officer (ACO), who is located at the contractor's facility. Although the ACO is the government responsible person, he cannot adequately do the job without assistance from program offices. This task requires teamwork and a close working relationship between the ACO and program managers at buying activities. In particular, major program managers should expect that ACOs will depend upon their input as to the accuracy of contractor's sales forecasts. At the buying activity, the program manager has up-to-date knowledge of specific forecasts relating to program cost, schedule, and technical information. At the contractor's plant, the ACO is concerned with ensuring that the

right types of business processes exist and are being used to support all government programs at the contractor's facility. The ACO's interest in indirect cost is the assurance that the costs are no higher than necessary and that the gov-

ernment is not paying more than its fair share. In order to function as a successful acquisition team, each team member must understand and support the roles played by the other members.